

Koch, Kristine

From: James McKenna <jim.mckenna@verdantllc.com>
Sent: Friday, August 01, 2014 4:04 PM
To: Koch, Kristine
Cc: Sheldrake, Sean; John Toll (JohnT@windwardenv.com); Carl Stivers (cstivers@anchorqea.com); Jennifer Worenets (jwornets@anchorqea.com); Bob Wyatt (rjw@nwnatural.com)
Subject: Updated Information re Manganese Aquatic Toxicity
Attachments: Hardness-based Mn Criterion Memo_01 August 2014.pdf

Kristine:

Per our informal FS technical discussions with EPA, the LWG and EPA agreed that we would generate updated information on manganese aquatic toxicity. This is because the Tier II value that was used in the BERA is 20 years old and there has been a great deal of research on the aquatic toxicity of manganese over the past two decades.

Attached is a memorandum generated by Windward presenting the updated information and a recommendation for the ecological PRG for manganese. The recommended value is calculated using all available aquatic toxicology data in strict accordance with EPA's procedures for deriving ambient water quality criteria. In other words, we believe this approach reflects what EPA's chronic ambient water quality criterion for manganese could be if EPA were to derive the criterion today using its own AWQC methodology (EPA has never derived AWQC for manganese, which is why the Tier II value was used in the BERA). The proposed PRG is hardness dependent. Numerical PRGs for individual transition zone water samples can be calculated easily because we have synoptic hardness and manganese concentration data for those samples.

We can discuss this during our meeting on August 5. If you or anyone on your team has a question before please call me, and if necessary I'll arrange a discussion with John Toll.

Thanks,

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